

Assignment -3
Python
Programming

Assignment Date	19 September 2022
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Student Roll Number	19EC160
Maximum Marks	2 Mark

Question-1:

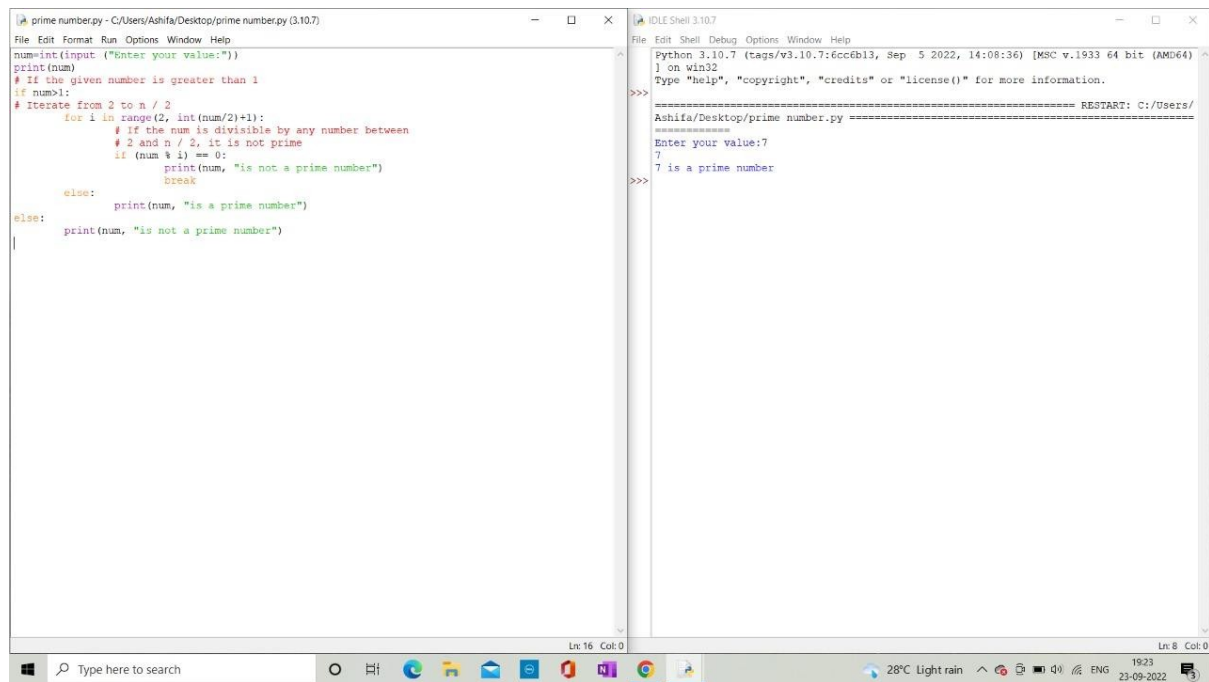
Write a python program to test a given number is prime or not.

Solution:

```
num=int(input ("Enter your
value:"))print(num)
# If given number is greater than 1
if num>1:
    # Iterate from 2 to n / 2
    for i in range(2, int(num/2)+1):
        # If num is divisible by any number
        between# 2 and n / 2, it is not prime
        if (num % i) == 0:
            print(num, "is not a prime
            number")break
        else:
            print (num, "is a prime number")
        else:
            print (num, "is not a prime
            number")
```

Output:

```
Enter your value:
77
7 is a prime number.
```



Question-2:

Write a program to generate odd numbers from m to n using while loop.

Solution:

Python program to print odd Numbers

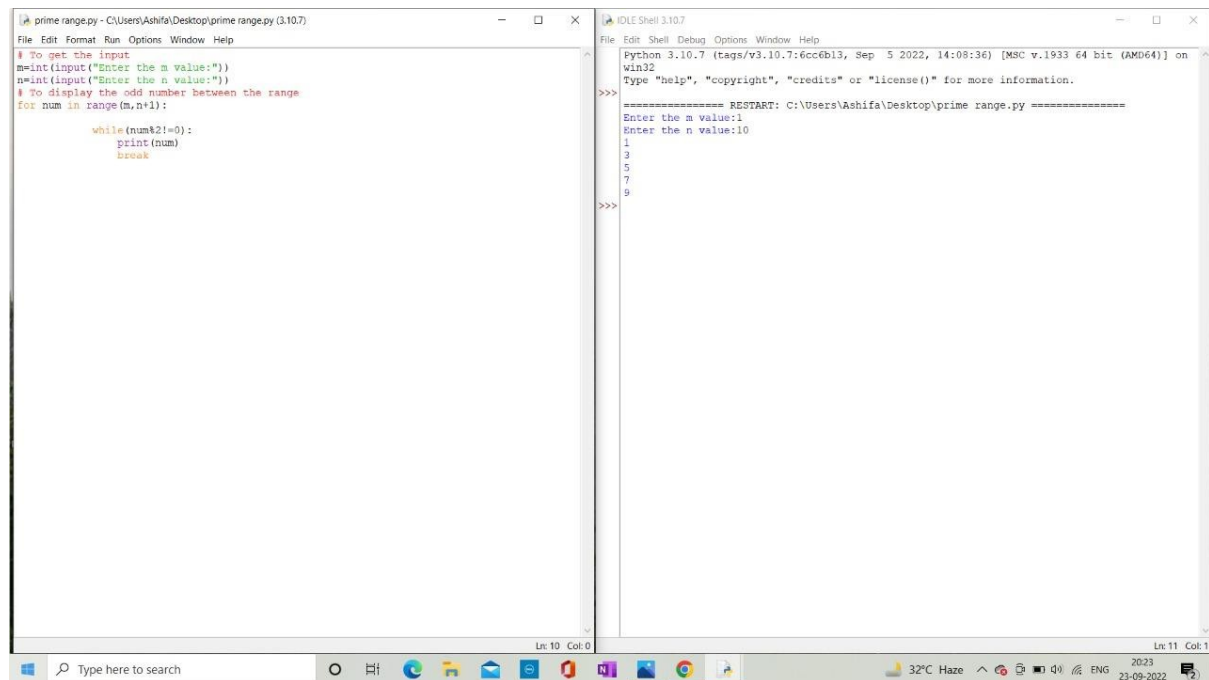
```
m=int(input("Enter the m
value:"))n=int(input("Enter the n
value:"))
```

```
for num in range(m,n+1):
```

```
    while(num%2!=0)
        :print(num)
        break
```

Output:

```
Enter the m
value:1 Enter the n
value:101
3
5
7
9
```



Question-3:

Write a python program to display prime number series up to given number.

Solution:

Python program to display all the prime numbers within an interval

```
lower = int(input("Please Enter minimum value:"))
```

```
upper = int(input("Please Enter maximum
value:"))
```

```
print("Prime numbers between", lower, "and", upper,
```

```
"are:")for num in range(lower, upper + 1):
```

```
# all prime numbers are greater than 1
```

```
if num > 1:
```

```
    for i in range(2,
        num):if (num % i)
```

```
        == 0:
```

```
            break
```

```
    else:
```

```
        print(num)
```

Output:

Please Enter Starting

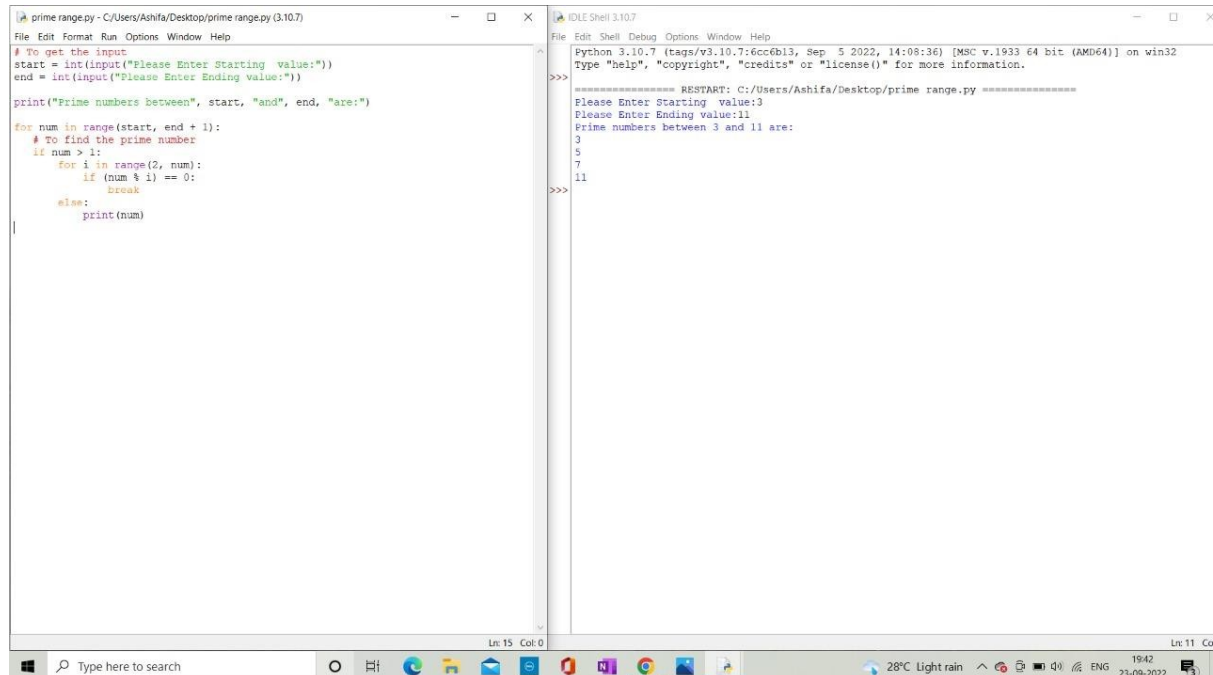
Value:3Please Enter

Ending Value:11

Prime number between 3 and 11

are:3

5
7
11



The screenshot shows a Python IDE with two windows. The left window, titled 'prime range.py - C:/Users/Ashifa/Desktop/prime range.py (3.10.7)', contains the following code:

```
# To get the input
start = int(input("Please Enter Starting value:"))
end = int(input("Please Enter Ending value:"))

print("Prime numbers between", start, "and", end, "are:")

for num in range(start, end + 1):
    # To find the prime number
    if num > 1:
        for i in range(2, num):
            if (num % i) == 0:
                break
        else:
            print(num)
```

The right window, titled 'IDLE Shell 3.10.7', shows the execution output:

```
Python 3.10.7 (tags/v3.10.7:6cc0b13, Sep 5 2022, 14:08:36) [MSC v.1933 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.

>>>
===== RESTART: C:/Users/Ashifa/Desktop/prime range.py =====
Please Enter Starting value:3
Please Enter Ending value:11
Prime numbers between 3 and 11 are:
3
5
7
11
>>>
```

Question-4:

Write a python program to generate Fibonacci series.

Solution:

Program to display the Fibonacci sequence up to n-th

```
termnterms = int(input("How many terms? "))
```

```
# first two
termsn1, n2 =
0, 1
count = 0
```

```
# check if the number of terms is
validif nterms <= 0:
```

```
    print("Please enter a positive
integer")# if there is only one term,
return n1
```

```
elif nterms == 1:
    print("Fibonacci sequence
upto",nterms,":.")print(n1)
```

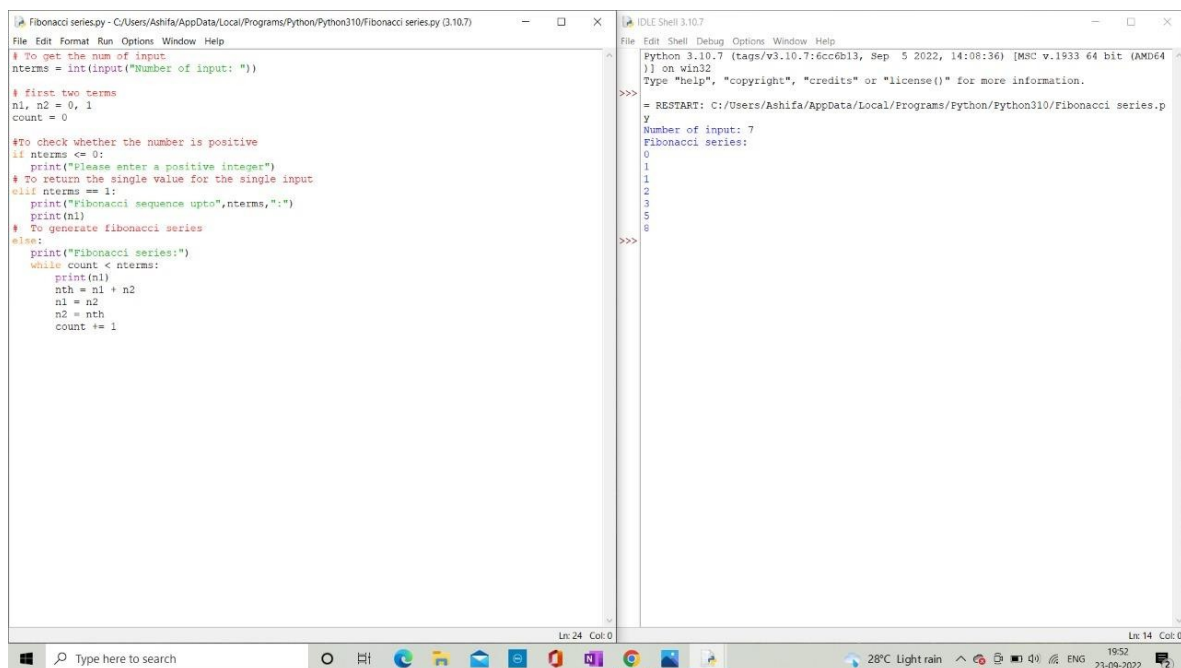
```
# generate fibonacci
sequenceelse:
    print("Fibonacci
sequence:")while count <
nterms:
    print(n1)
```

```
nth = n1 + n2
# update
valuesn1 = n2
n2 = nth
count += 1
```

Output:

Number of
inputs:7Fibonacci
series:

0
1
1
2
3
5
8



The screenshot displays a Python IDE with two windows. The left window, titled 'Fibonacci series.py', contains the following code:

```
File Edit Format Run Options Window Help
# To get the num of input
nterms = int(input("Number of input: "))

# first two terms
n1, n2 = 0, 1
count = 0

#To check whether the number is positive
if nterms <= 0:
    print("Please enter a positive integer")
# To return the single value for the single input
elif nterms == 1:
    print("Fibonacci sequence upto",nterms,":")
    print(n1)
# To generate fibonacci series
else:
    print("Fibonacci series:")
    while count < nterms:
        print(n1)
        nth = n1 + n2
        n1 = n2
        n2 = nth
        count += 1
```

The right window, titled 'IDLE Shell 3.10.7', shows the program's output:

```
Python 3.10.7 (tags/v3.10.7:6cc6b13, Sep 5 2022, 14:08:36) [MSC v.1933 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>> = RESTART: C:/Users/Ashifa/AppData/Local/Programs/Python/Python310/Fibonacci series.py
>>> Number of input: 7
Fibonacci series:
0
1
1
2
3
5
8
>>>
```

The Windows taskbar at the bottom shows the system clock as 19:52 on 23-09-2022, with weather information indicating 28°C and light rain.